

WHAT IS CLAIMED IS:

1. A currency processing device, comprising:

an input receptacle adapted to receive a stack of currency bills to be processed;

5 a plurality of output receptacles for receiving currency bills that have been processed;

an evaluation unit for determining information concerning each of the currency bills;

10 a transportation mechanism adapted to transport each of the currency bills, one at a time, from the input receptacle past the evaluation unit to the plurality of output receptacles, the transportation mechanism including a first portion adapted to transport bills at a first speed and a second portion adapted to transport bills at a second speed; and

15 a controller adapted to control the operation of the of the transport mechanism, the controller being adapted to cause the transport mechanism to transport each of the bills to one of the plurality of output receptacles in response to the information concerning each of the bills determined by evaluation unit, the controller being adapted to cause the first portion and the second portion of the transport mechanism to transport bills at substantially the same speed when the distance between consecutive
20 bills transported by the transport mechanism is at least a predetermined distance, the controller being adapted to cause the first portion of the transport mechanism to slow the speed at which bills are transported such that the first speed is less than the second speed when the evaluation unit determines when the distance between two consecutive bills transported by the transport mechanism is less than the
25 predetermined distance.

2. The currency processing device of claim 1 wherein the predetermined distance is less than about one inch.

30 3. The currency processing device of claim 1 wherein the first portion of the transportation mechanism includes a plurality driven rollers for transporting each of the currency bills.

4. The currency processing device of claim 3 further comprising a first motor electrically coupled to the controller, the first motor being adapted to drive the driven rollers of the first portion of the transportation mechanism.

5 5. The currency processing device of claim 1 wherein the second portion of the transportation mechanism includes a plurality driven rollers for transporting each of the currency bills.

10 6. The currency processing device of claim 4 further comprising a second motor electrically coupled to the controller, the second motor being adapted to drive the driven rollers of the second portion of the transportation mechanism.

15 7. The currency processing device of claim 1 wherein the plurality of output receptacles comprises two output receptacles.

8. The currency processing device of claim 7 wherein the transport mechanism includes a diverter for directing bills into one of the two output receptacles.

20 9. The currency processing device of claim 8 wherein the diverter is included in the second portion of the transport mechanism.

25 10. The currency processing device of claim 1 wherein the evaluation unit is disposed along the first portion of the transport mechanism.

30 11. The currency processing device of claim 1 wherein the controller is adapted to cause the first portion of the transport mechanism to resume transporting bills at substantially the same speed as the second portion of the transport mechanism upon transporting the two consecutive bills separated by a distance of at least the predetermined distance past the evaluation unit.

12. The currency processing device of claim 1 wherein the first portion of the transport mechanism is upstream of the second portion of the transport mechanism.

5 13. A method for processing currency bills with a currency processing device, the currency processing device having a transport mechanism adapted to transport bills from an input receptacle past an evaluation unit to a plurality of output receptacles, the transport mechanism including a first portion adapted to transport bills at a first speed and a second portion adapted to transport bills at a second speed, the
10 method comprising:

determining information concerning each of the bills with an evaluation unit;

designating a target output receptacle from a plurality of output receptacles for each of the bills based on the determined information for each bill;

transporting each bill to the designated target output receptacle;

15 determining the distance between consecutive currency bills being transported by the transport mechanism with the evaluation unit; and

slowing the speed at which the first portion of the transport mechanism transports bills when the determined distance between consecutive first and second currency bills transported by the transport mechanism is less than a predetermined
20 distance.

14. The currency handling device of claim 13 comprising increasing the speed at which the first portion of the transport mechanism transports bills after each of the first and second currency are transported to one of the plurality of output
25 receptacles.

15. The method of claim 13 wherein increasing comprises increasing the speed at which the first portion of the transport mechanism transports bills such that the first and second portions of the transport mechanism transport bills at substantially
30 the same speed.

16. The method of claim 13 wherein the predetermined distance is less than about one inch.

17. The method of claim 13 wherein slowing further comprises slowing the speed at which the first portion of the transport mechanism transports bills when the designated target output receptacle for the first currency bill is different than the designated target output receptacle for the second currency bill.

18. A currency processing device, comprising:
 an input receptacle adapted to receive a stack of currency bills to be processed;
 a first output receptacle and a second output receptacle for receiving currency bills that have been processed;

a transport path extending between the input receptacle and the first and second output receptacles along which the currency bills are transported;

an evaluation unit disposed along the transport path for determining information concerning each of the currency bills;

a transportation mechanism adapted to transport each of the currency bills, one at a time, from the input receptacle past the evaluation unit to the first and second output receptacles, the transportation mechanism including a first portion adapted to transport bills at a first speed and a second portion adapted to transport bills at a second speed;

a diverter disposed along the transport path between the first portion of the transport mechanism and the second portion of the transport mechanism, the diverter being adapted to divert bills being transported from the transport path toward the first output receptacle;

a controller adapted to control the operation of the of the transport mechanism and the diverter, the controller being adapted to cause the transport mechanism to transport each of the currency bills to one of the first and second output receptacles in response to the information concerning each of the currency bills determined by evaluation unit, the controller being adapted to cause the first portion and the second portion of the transport mechanism to transport bills at substantially the same speed when the distance between consecutive bills transported by the transport mechanism is at least a predetermined distance, the controller being adapted to cause the first portion of the transport mechanism to slow the speed at which bills are transported such that the first speed is less than the second speed when the evaluation unit

determines that the distance between two consecutive bills transported by the transport mechanism is less than the predetermined distance.

5 19. The currency processing device of claim 18 wherein the predetermined distance is less than about one inch.

10 20. The currency processing device of claim 18 wherein the first portion of the transportation mechanism includes a plurality driven rollers for transporting each of the currency bills.

21. The currency processing device of claim 20 further comprising a first motor electrically coupled to the controller, the first motor being adapted to drive the driven rollers of the first portion of the transportation mechanism.

15 22. The currency processing device of claim 18 wherein the second portion of the transportation mechanism includes a plurality driven rollers for transporting each of the currency bills.

20 23. The currency processing device of claim 22 further comprising a second motor electrically coupled to the controller, the second motor being adapted to drive the driven rollers of the second portion of the transportation mechanism.

25 24. The currency processing device of claim 18 wherein the plurality of output receptacles comprises two output receptacles.

25 25. The currency processing device of claim 24 wherein the transport mechanism includes a diverter for directing bills into one of the two output receptacles.

30 26. The currency processing device of claim 25 wherein the diverter is included in the second portion of the transport mechanism.

27. The currency processing device of claim 18 wherein the evaluation unit is disposed along the first portion of the transport mechanism.

5 28. The currency processing device of claim 18 wherein the controller is adapted to cause the first portion of the transport mechanism to resume transporting bills at substantially the same speed as the second portion of the transport mechanism upon transporting the two consecutive bills separated by a distance of at least the predetermined distance past the evaluation unit.

10 29. The currency processing device of claim 18 where the first portion of the transport mechanism is upstream of the second portion of the transport mechanism.

15 30. The currency processing device of claim 18 wherein the first portion of the transport mechanism is adapted to transport bills, one at a time, from the input receptacle to the second portion of the transport mechanism

20 31. The currency processing device of claim 18 wherein the second portion of the transport mechanism is adapted to receive bill from the first portion of the transport mechanism and to transport bills to the second output receptacle.